

ABSTRACT

It is devised to transport plasma including charged particles made of containment target atom ions and charged particles of a polarity opposite to that of the containment target atom ions, up to an empty fullerene film on a deposition-assistance substrate by a uniform magnetic field, and to give acceleration energies to the containment target atoms by a bias voltage applied to the deposition-assistance substrate, thereby implanting the containment target atoms into the fullerene film. Since attractive forces act between the charged particles constituting the plasma so that the plasma is not diverged, it becomes possible to achieve a high density ion implantation to improve a yield of containing-fullerene even in ion implantation with a low energy.